

1 CLAIMS

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3 1. A method of providing a document with a covert
4 security feature in which the document is provided with
5 at least one dopant, the dopant being of a material
6 which can be identified by examination of its response
7 to visible wavelength photon radiation.

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9 2. A method of providing a document with a covert
10 security feature as claimed in Claim 1, in which the
11 dopant comprises one or more inorganic compounds.

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13 3. A method of providing a document with a covert
14 security feature as claimed in Claim 1 ~~or Claim 2~~, in
15 which the dopant comprises one of, or a combination of
16 the elements listed in Table 5, in elemental form or as
17 an oxide or salt.

18

19 4. A method of providing a document with a covert
20 security feature as claimed in ~~any preceding Claim~~ ^{Claim 1}, in
21 which the dopant is mixed with a quantity of an element
22 or its salt or its oxide with an atomic number greater
23 than 36.

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25 5. A method of providing a document with a covert
26 security feature as claimed in Claim 4 in which the
27 element or its salt or its oxide is Strontium,
28 Lanthanum or Bismuth.

29

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9 429
1 6. A method of providing a document with a covert
2 security feature as claimed in ^{Claim 1} ~~any preceding claim~~, in
3 which the dopant is mixed with ink and the resulting
4 mixture is applied to the document.

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6 7. A method of providing a document with a covert
7 security feature as claimed in ^{Claim 1} ~~any preceding claim~~ in
8 which the dopant is fused in a glass before being
9 applied to the document.

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11 8. A method of providing a document with a covert
12 security feature as claimed in Claim 7 in which the
13 glass is made of silicates and/or phosphates and/or
14 borates.

9
16 9. A method of providing a document with a covert
17 security feature as claimed in Claim 7 or ~~Claim 8~~ in
18 which the or each dopant is micronised into a fine
19 powder.

20
21 10. A method of providing a document with a covert
22 security feature as claimed in ^{Claim 7} ~~one of Claim 7 to Claim~~
23 ~~9~~ in which each particle of the micronised fine powder
24 has a diameter of 1-4µm.

9
26 11. A method of providing a document with a covert
27 security feature as claimed in ^{Claim 1} ~~any preceding claim~~ in
28 which the dopant is such that, when the document is
29 illuminated with broad-band visible light to produce a
30 reflectance spectrum with frequency components

1 generated by the dopant and by other reflecting
2 substances contained in the document, said spectrum
3 containing minimal frequency overlap between the
4 components of the spectrum generated by the dopant and
5 that part of the spectrum generated by other substances
6 contained in the document.

7
8 12. A method of providing a document with a covert
9 security feature as claimed in ~~any preceding claim~~ ^{claim 1} in
10 which the dopant is such that, when the document is
11 illuminated with broad-band visible the frequency
12 components generated by the dopant are invisible to the
13 human eye.

14
15 13. A method of providing a document with a covert
16 security feature as claimed in ~~any preceding claim~~ ^{claim 1} in
17 which the spectrum of the dopant can be shifted to a
18 higher or lower wavelength.

19
20 14. A method of providing a document with a covert
21 security feature as claimed in ~~any preceding claim~~ ^{claim 1} in
22 which the spectrum of the dopant can be shifted to a
23 higher or lower wavelength by alteration of the
24 composition of the glass in which it is fused.

25
26 15. A method of providing a document with a covert
27 security feature as claimed in ~~any preceding claim~~ ^{claim 1} in
28 which the spectrum of the dopant is alterable by
29 alteration of the reaction temperature and/or pressure
30 at which the glass is made.

16. A document provided with a covert security feature
by the method ~~any of the preceding claims~~

17. A dopant for use in providing a document with a
covert security feature, comprising one or more
combination of the elements listed in Table 5, in
elemental form or as an oxide or salt, in finely
divided form.

18. A method of making a dopant, in which one or a
combination of the elements listed in table 5, in
elemental form or as an oxide or salt, is fused in a
glass and subsequently micronised.

COMPOSITIONS / MIXTURES

Transmission modifying 252/584
Reflectance modifying 501/ various; oxides & glasses
420/ various; alloys
252/1; salt mixtures

Add
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